

REMARKS

Applicant notes that the examiner made no mention of independent Claim 23 in the current Office Action, not in the PTO 326, not in the text of the statement of rejection. Claim 23 was in the application when originally filed. Claim 23 was amended in Amendment A, and again in Amendment D. Claim 23 has never been canceled. Indeed, Applicant made substantial remarks regarding patentability of Claim 23 in (the last) Amendment D, and specifically included Claim 23 in the statement of the claims which were at that time in the application. Accordingly, Applicant respectfully requests that the examiner specifically address Claim 23 in the next paper.

A minor amendment has been made to the specification at page 14, specifically stating that the stud indicator markings are "visually conspicuous". Such labeling of the stud indicator markings is consistent with the original language on page 14, as well as with the drawings wherein the stud locator markings are visually conspicuous. Webster's dictionary defines "conspicuous" as *obvious to the eye; plainly visible, attracting attention or tending to attract attention*. Such definition is fully consistent with the original language of the specification at page 14 wherein is stated quickly catch the viewer's eye. Accordingly, Applicant respectfully submits that no new matter has been added.

No claims have been canceled. No new claims have been added. Claims 1, 8, 9, 65, 72, and 73 have been amended to define the invention with more clarity. Applicant submits that all amendments are supported by the application-as-filed and that no new matter has been added. Claims 1-11, 23-30, and 65-77 remain in the application. Reconsideration of the application is requested in light of the foregoing amendments and the following remarks.

Rejection of Claims under 35 U.S.C. 103(a)

Claims 1, 4, 6, 7, 9-11, 15, 17, 18, 24-30, 65, 70, 71, and 73-77 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Day (US 5,632,095) in view of Leary (US 2,187,087). Applicant respectfully traverses the rejection.

The examiner states at page 3 lines 6-8 of the Official Action that

"it would have been obvious to a person of ordinary skill in the art to combine Day with Leary for the stud locator markings having leading, trailing edge lines."

In addressing the examiner's statement, the reader is first faced with the question of what did the examiner mean by that statement? Namely, "what is the nature of the resulting combination?" Restated another way, "what resulting combination did the examiner have in mind?" Stated still another way, "what combinations of Day and Leary are possible, and which if any are obvious?" In light of the preliminary remarks at the beginning of numbered paragraph 2 of the Office Action, Applicant presumes that Day is the primary reference, and is to be modified by the teaching of Leary.

In addressing the examiner's statement, Applicant has come up with three possible combinations of Day and Leary, wherein Day is treated as the primary reference. Applicant wonders which one of these combinations, if any, the examiner had in mind. In light of such lack of clarity, applicant submits that the examiner has not made a case of prima facie obviousness, on the basis that the resultant structure asserted by the examiner cannot be determined with any degree of certainty. Accordingly, applicant respectfully requests that, if the examiner should find the application still not allowable after full consideration of this paper, the next Office Action cannot appropriately be made Final in light of the fact that no clear basis has

been stated for rejecting the application in view of Day and Leary. Namely, Applicant requests a statement of what markings of Leary are to be placed on Day, what markings of Day, if any, are to be deleted, what markings are to take their place, and what will be the appearance of the resultant combination?

Applicant further notes that the present Office Action contains grammar defects of such severity that Applicant is unable to discern the real message which the examiner was attempting to convey. Applicant submits that he should not have to speculate as to the general nature of what the examiner was trying to convey, that he is entitled to a clear statement of the rationale behind the rejection. Namely, the law states that the examiner has to make his prima facie case. Applicant submits that if the grammar is so poor that the message cannot be discerned with reasonable clarity, it is without question that the examiner has failed to make his prima facie case.

Nevertheless, in spite of this lack of clarity in the examiner's rejection, applicant presents his response here to the best of his ability, including Applicant's expectation as to the possible combinations which the examiner might have had in mind, and addresses each one in turn. The three combinations applicant has come up with are illustrated in ATTACHMENTS A, A2, and A3.

In ATTACHMENT A, the spaced stud locator markings indicated on Leary's tape have been added, as spaced ink markings directly on the lumber of Day. The closely-spaced parallel lines which are used by Day to indicate a stud location have been replaced by regular inch markings, since the Leary markings are now indicative of the stud locations. Thus, the combination of ATTACHMENT A replaces the stud locator markings of Day with the stud locator markings of Leary, and places the Leary stud locator markings directly on the lumber. As such, the locations of Leary are employed in combination with the direct-ink-on-wood practice of Day, while deleting the stud locator markings of Day.

In ATTACHMENT A2, the stud locator markings indicated on Leary's tape have been added, as spaced ink markings directly on the lumber of Day. The closely-spaced parallel lines which are used by Day to indicate a stud location have been left unchanged. Thus, the combination of ATTACHMENT A2 adds the stud locator markings of Leary to the stud locator markings of Day, and places the Leary stud locator markings directly on the lumber. As such, the locations of Leary are employed in combination with the direct-ink-on-wood practice of Day, while maintaining the stud locator markings of Day.

In ATTACHMENT A3, the tape of Leary, with its spaced stud locator markings, is affixed to the surface of the already-printed lumber of Day, thus covering the Day markings on one side of the piece of lumber.

Applicant turns first to ATTACHMENT A3. As a point of entry into the analysis, Applicant points out that the A3 combination results in imposition of tape between the marked lumber piece and the end of the stud which is to be assembled to the marked piece of lumber. Such imposition of tape is subject to the several disfunctional defects related to slipping, moving, and breaking of the tape, as pointed out by Applicant in Applicant's Reply Brief, mailed January 3, 2003. The tape of Leary is subject to the same types of problems discussed in the Reply Brief whereby it would not have been obvious to apply the tape of Leary to the lumber of Day.

In addition, placing the tape of Leary over the printed measurement markings of Day covers, obliterates, makes useless, defeats the purpose of, approximately half of the markings on the Day product. Thus, this combination works violence on the measuring features intended to be incorporated into the Day product. Day states at col 3 lines 36-39 that the accuracy of measurement, cutting and framing "are critical in any framing project...." But the combination of A3 defeats the advantage being described by Day.

In light of the above, Applicant submits that it would not have been obvious to combine Leary and Day and thereby to negate half of the work of Day in order to incorporate the teaching of Leary as in the embodiment of ATTACHMENT A3, and thereby obtain a resulting product having the disfunction problems related to a tape which can slip, move, and/or break.

Since it would not have been obvious to combine Leary and Day in the manner of A3, the A3 combination can be dismissed out of hand as not hindering patentability of any of Applicant's claims.

Applicant turns next to the combination of ATTACHMENT A, and starts with consideration of the effect of the combination of ATTACHMENT A on Claim 1. Claim 1 has been amended to recite the markings indicating the positions where the front and back surfaces of respective lumber pieces are to intersect the respective said elongate piece of lumber being visually conspicuous so as to quickly catch the viewer's eye. This language is taken from page 14 line 7 of applicant's specification, with only the specific recitation "visually conspicuous" being added by amendment. The statement to quickly catch the viewer's eye was in the specification as originally filed. Accordingly, adding the phrase *visually conspicuous* is no more than a restatement of *quickly catch the viewer's eye*.

In arriving at any conclusion regarding patentability, one must keep in mind the objective of the inventor's inquiry. Only by putting ourselves in the inventor's place, by asking the proper question of "what would a person of ordinary skill in the art do(?)", can we arrive at a proper conclusion regarding whether the references would have made the invention obvious. Pages 5-6 of Applicant's specification states the objects of the invention. Referring to page 5 at lines 14-18, one of the objects is *to provide products wherein the stud locator markings...enable unskilled workers to*

recognize the desired spacings and lay out the studs.... Leary, too, recognizes that stud layout is ordinarily done by skilled workmen, and desires that such layout be done "by ordinary workmen" (col. 1 lines 20-26).

Day, by contrast, focuses on "*measuring and cutting*" so as to achieve a proper assembly (col. 1 lines 50-59). Day essentially provides ruler markings on every piece of lumber, and thereby "*eliminates the need for additional tools and implements, saves time and improves accuracy in measuring for framing purposes, where exact measurements are critical to the framing of the structure....*"

In light of the above problem facing the inventor, we now look at ATTACHMENT A and ask ourselves whether the "A" combination arrives at the claimed invention. As critical to answering that question, one must ask whether, in the layout of the "A" combination, the leading and trailing edge stud locator markings are visually conspicuous so as to quickly catch the viewer's eye. Applicant submits that there is nothing in the "A" combination whereby the leading and trailing edge stud locator markings, namely the added (Leary) markings, are visually conspicuous so as to quickly catch the viewer's eye. And there is nothing in either Day or Leary which would lead the artisan to make such markings visually conspicuous, especially in light of the fact that the objectives of Day are focused on measurings.

In arriving at the above conclusion, Applicant observes that the markings in the "A" combination represent visual overload, visual clutter, to an unskilled workman. Potentially, a skilled workman, with significant effort, may reliably perceive the correct locations for the studs. But the objective here is make the stud locations readily perceived by an unskilled worker. So let's take the proverbial unskilled "kid off the street" who is hired as a construction worker. Let's have that worker position the studs on plates and/or sills of the "A" configuration. Will he repeatedly locate the studs with reasonable reliability?

Consider the stud locator markings indicated at 34 in Fig. 3 of the "A" combination. That piece of lumber has markings at $\frac{1}{2}$ inch spacings, including through the space where the stud is to be located. Since a conventional "stud" is 1.5 inches thick, the "A" combination has added markings at $\frac{1}{4}$ inch spacing between ones of those $\frac{1}{2}$ inch markings, $\frac{3}{4}$ inch away from the "34" indication on the lumber piece. Given that positioning of the leading and trailing edge of the stud markings, and given the thickness of conventional studs at 1.5 inches, the leading surface of a stud can be placed at any of the markings in the vicinity of "34", and the worker will see a marking adjacent the trailing surface of the stud. Similarly, the trailing surface of the stud can be placed at any of the markings in the vicinity of "34" and the worker will see a marking adjacent the leading surface of the stud. Applicant submits that there is nothing "visually conspicuous" about the combination "A" layout which would "quickly catch the viewer's eye" as recited in Claim 1.

In light of the above, Applicant submits that the "A" combination does not achieve the "visually conspicuous" nature of the markings claimed in Claim 1, whereby Claim 1 is patentable over the "A" combination.

Applicant next turns to ATTACHMENT A2 and asks whether the combination of A2 provides the required "visually conspicuous" markings of Claim 1. Applicant submits that the same analysis as is used above with respect to combination "A" applies equally as well to the "A2" combination, whereby Claim 1 is patentable over the "A2" combination.

With respect to claim 5, the examiner stated that to adjust the variation in spacing between the stud locator markings on the studs...[to] no more than 0.13" is considered as obvious design choice based on desired use. In a previous Office Action, the examiner asserted *In re Aller*, which Applicant refuted. Now the examiner makes no reference to *In re Aller*, and substitutes his own judgment. Applicant

interprets such statement to mean that the examiner cannot find any reference which supports his position and accordingly imposes his desired hindsight judgment. Such conduct is blatantly contrary to the law, and cannot stand.

Indeed, those skilled in the lumber construction trades know that precision is not a core value in lumber-based construction, especially precision at the construction site.

So the examiner's statement, regarding precision with respect to Claim 5, is without basis and cannot stand, and Claim 5 is allowable over the references on its own merits.

Claim 6 teaches "sets of 2 side-by-side stud locator markings . . . along the lengths of . . . framing lumber product[s]." In contrast, Day discloses "visible marking lines" at "preselected intervals, such as 12 inches, 16 inches, and 24 inches . . ." (Day Col. 1, Lines 53-54). Day does not teach or suggest a "set of 2 side-by-side" such markings. Nothing in Leary cures this defect. Accordingly, Applicant submits that Claim 6 is allowable. Withdrawal of the rejection is respectfully requested.

Claims 7-9 recite framing lumber product "**substantially devoid of any marking indicators away from the stud locator markings.**" Neither combination "A" nor combination "A2" teach a product "substantially devoid of any location marking indicators away from the stud locator markings" as claimed in Claims 7-9. For instance, Day discloses a "lumber product . . . [having] marking lines spaced at ½" intervals . . ." (Day Col.1 Lines 50-51, Col. 4 Line 4). Indeed, Day does not teach *any* embodiment devoid of such markings, as well as 1 inch intervals, and foot intervals. Neither do any of the combination structures "A", "A2", or "A3".

For example, under the teachings of Day, an eight foot framing stud could be expected to have approximately 192 lines per edge, on the "face" of the stud. Further, Day teaches marking lines adjacent *both* edges of the face; the two rows "are separated down the middle longitudinally by an unmarked section" (day Col.2, Lines 4-5). Thus, Day teaches a lumber product with as many as 192 lines in each of 2 rows "per face," or 384 total lines. Obviously, 384 lines on a piece of lumber *cannot* be

considered "substantially devoid of any marking indicators away from the stud locator markings."

Consider how different the Day product, and Applicant's invention, would appear in an **actual** wall framing assembly. First, consider how Day's product would appear on the bottom plate of a "framed up" wall. Some of the "stud marking lines," and "other marking lines" would not be visible, as they would be directly covered by studs. So, if standard dimension 2x4 studs were used, approximately 1.5" of markings lines would be covered per stud placement. However, the remainder of the bottom plate would show a vast number of "visible marking lines and corresponding numerals." And, of course, the presence of so many marking lines, some as close as ¼ inch away from the lines to be used, present plenty of potential for making a mistake by aligning a stud with the wrong marking indicator line. In any event, Day does NOT teach or suggest a product substantially devoid of any marking indicators away from the stud locator markings. A substantial consequence of such visual clutter on the Day lumber, or the "A" combination or the "A2" combination, is the potential for mistake in assembling a stud to such piece of lumber.

While, in hindsight, the clarity value of Applicant's claimed invention can readily be seen, such is not made obvious by any combination of the references. Rather, the structures which can be made by combining the references are visually cluttered, cause visual overload, which is a prescription for error on the construction site. The claimed invention, on the other hand, does not suffer from such proclivity to error, but makes the layout quite simple and straight forward since the stud marking indicators are, at minimum, visually conspicuous.

The examiner attempted to respond, at page 4 of the Office Action, last paragraph, to Applicant's most recent arguments. Unfortunately, the examiner's grammar here is so poor that Applicant is unable to discern the message the examiner was attempting to convey. Nonetheless, Applicant responds here as Applicant best understands the examiner's message, especially with respect to the leading and trailing markings. The examiner states that the studs will "devoid the markings". Applicant assumes the examiner means that the studs will cover the markings. Not necessarily.

Nothing in Applicant's teaching suggests that a properly-placed stud covers the marking so as to make the marking invisible (devoid the marking). Rather, a preferable spacing of the leading and trailing markings from each other is such placement where the markings are visible immediately adjacent the stud surfaces when the stud is properly positioned, as suggested in the specification at page 14 lines 3-4, and as claimed at Claim 77.

What Claims 7-9 state, as well as independent Claim 23, is that the lumber piece is devoid of any location marking indicators away from the stud locator markings. In that regard, Applicant distinguishes between a stud locator marking, which indicates location for a stud, and (generic) marking indicators such as the various measurement marking indicators shown on Day, e.g. the ½ inch marking indicators, the 1 inch marking indicators, the foot marking indicators, and the like.

Since no reference, no obvious combination of references, teaches or suggests a lumber piece marked with stud locator markings and also being devoid of marking indicators away from the stud locator markings, Claims 7-9, and 23, and all claims dependent therefrom, are patentable over the references of record.

Claims 10-11 stand rejected as obvious under 35 U.S.C. § 103(a) with reference to Day and Leary. Claims 10-11 stand on their own merits, in addition to the patentability provided through Claim 1.

Claims 10-11 teach stud locator markings with crossing lines between the leading and trailing edge lines, and crossing lines extending from one leading edge to the corresponding trailing edge, respectively. The Day reference does not teach or suggest such. A product covered by the Day reference is intended to be a "measuring tool" in addition to being a building material. By contrast, the point of Applicant's invention is to provide lumber products, which are simple, accurate, cost effective, and require less attention to detail for accurate use. Indeed in the clutter of the Day configuration, the crossing lines of Claims 10-11 could, if used, be features which make the stud locator markings "visually conspicuous", the feature which is missing

from the illustrations "A" and "A2" shown. Such feature is, of course, missing, from the illustrations because the references do not teach or suggest crossing lines.

In view of the foregoing, Applicant submits that Claims 10-11 are allowable. Withdrawal of the rejection is respectfully requested.

Claims 27-28 stand rejected as unpatentable over Day in view of Leary. Claim 27 teaches precision for the placement of stud locator markings. Specifically, Claim 27 teaches "variations in spacing between said stud locator markings . . . consistently no more than 0.13 inch leading edge to leading edge." The examiner stated that to adjust the variation in spacing between the stud locator markings on the studs..[to] no more than 0.13" is considered as obvious design choice based on desired use. Applicant interprets such statement to mean that the examiner cannot find any reference which supports his position and accordingly imposes his desired hindsight judgment. Such conduct is blatantly contrary to the law, and cannot stand.

Indeed, those skilled in lumber construction trades know that precision is not a core value in lumber-based construction, especially not precision at the construction site where unskilled labor is commonly used in framing a building. So the examiner's statement is without basis and cannot stand, and Claim 27 is allowable over the references on its own merits.

Claim 28 generally tracks the recitation of Claim 6. Thus, the analysis of separate patentability of Claim 28 is the same as the analysis of patentability of Claim 6 *supra*. In view of the foregoing, Applicant submits that Claims 27-28 are allowable. Withdrawal of the rejection is respectfully requested.

Claims 29-30 stand rejected as being unpatentable over Day in view of Leary. Claims 29-30 generally track the recitations of Claims 10-11, respectively. Thus, the analysis of the patentability of Claims 10-11 *supra*, is equally applicable to Claims 29-30. Accordingly, Applicant submits that Claims 29-30 are allowable. Withdrawal of the rejections of Claims 29-30 is respectfully requested.

Claim 65 recites the stud locator "markings comprising a leading edge and a trailing edge, said leading edge and said trailing edge, on a given said stud locator marking, being separated by a distance generally defined by at least a standard nominal stud thickness...the stud locator markings being visually conspicuous so as to quickly catch the viewer's eye."

As in the analysis of Claim 1, neither Day nor Leary alone teach or suggest markings directly on the lumber piece where a stud locator marking is visually conspicuous. The A3 combination is not an obvious combination and so can be dismissed without further ado.

The "A" and "A2" combinations do not achieve the visually conspicuous feature. Day teaches a "measuring scale" type device, and teaches measuring and physically marking stud locations; and thus "enable[s] the carpenter to see quickly and easily the measurements to be marked." Thus, under the Day reference alone, any placement markings, which correspond to nominal stud thickness must be manually measured and marked anyway. While the "A" and "A2" combinations provide the markings, the plethora of other markings makes these stud indicators difficult to see, and subject to error when studs are emplaced. Clearly, the stud marking indicators of "A" and "A2" are not visually conspicuous as required by Claim 65. Accordingly, Applicant submits that Claim 65 is allowable over all references of record. Withdrawal of the rejection of Claim 65 is respectfully requested.

Claims 70-77 stand rejected as unpatentable over Day in view of Leary. Applicant submits that amended Claim 65, from which Claims 70-77 depend, defines over the references. However, Claims 70-77 also stand on their own merits, in addition to the patentability provided through Claim 65.

Claims 70-73 parallel Claims 6-9 respectively. Thus, the above discussion of patentability of Claim 6 is equally applicable to Claim 70; the above discussion of patentability of Claim 7 is equally applicable to Claim 71; patentability of Claim 8 applies equally to Claim 72, and patentability of Claim 9 applies equally to Claim 73. Accordingly, Applicant submits that Claims 70-73 are allowable. Withdrawal of the rejections is respectfully requested.

Claims 74-75 parallel Claims 10-11, respectively. Thus, the above analysis of patentability of Claims 10-11 is equally applicable to Claims 74-75. Accordingly, Applicant submits that Claims 74-75 are allowable. Withdrawal of the rejection is respectfully requested.

Claims 76 and 77 each depend from 65. Claim 76 further defines a relationship between a leading edge and the corresponding trailing edge within a first stud locator marking, and distance between the trailing edge of the first stud locator marking and the leading edge of a second locator marking. Thus, the same analysis in regards to patentability of Claim 65 equally applies to Claim 76, as well as the additional point of novelty being the distance between the trailing edge of a stud locator marking, and the leading edge of a second stud locator marking.

New Claim 77 recites that neither the leading edge nor trailing edge of the stud locator marking is completely covered when a standard dimension stud is placed on the marked piece of lumber. Applicant submits that no reference of record teaches or suggests this feature. Certainly, the examiner has not pointed out any such feature in any reference of record. Accordingly, Claim 77 is allowable over the references of record.

As a general comment, besides production costs compared to the Day reference, Applicant's invention offers other cost savings. Applicant's invention provides numerous labor cost saving advantages. To fully appreciate the advantages of Applicant's invention, consider first how a product described in Day is used.

To use a product of Day, or a Day/Leary combination, one must be fairly skilled. First, the user locates the appropriate "stud locator markings," which correspond to where the center of a stud should be placed; second, the user searches for the leading and trailing marker lines; third, the user positions the surfaces of the stud at the correct stud locator markings, rejecting the adjacent, and similar-appearing markings which are only $\frac{1}{4}$ inch away. Note the similarity between the stud locator markings leading and trailing edges, and the evenly-spaced $\frac{1}{2}$ inch markings. One could easily, in

error, misplace the stud surfaces adjacent one of the ½inch markings and visually see a line at both the leading and trailing surface of the stud, whereby the resulting incorrect placement could look correct to casual observation. While close attention to detail will avoid such error, it is exactly this requirement for close attention to detail which the invention seeks to avoid.

Clearly, substantial attention to detail, and substantial skill, are required to use the Day/Leary combinations of ATTACHMENTS A and A2.

In addition, the Day reference would not be effective for its intended purpose if it were devoid of marking indicators, away from any “stud locator markings,” as in e.g. Claims 7, 8, 23, etc. Day teaches an invention “concern[ing] a lumber product, adapted for use in the measuring, cutting and assembling . . . of a house or other structure” (Day Col 1, Lines 35-37 (emphasis added)). If a product purportedly of Day were devoid of additional marking lines, it would cease to be an effective tool for measuring, or determining where to make cuts, and indeed would cease to meet the objectives stated in Day, and would therefore be outside the teaching of Day.

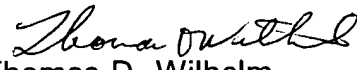
In conclusion, no obvious combination of Day and Leary provides visually conspicuous stud locator markings at surfaces which assist in defining respective ones of the thickness dimensions of the lumber piece; or as in Claims 7, 8, 23, etc., markings on the lumber piece wherein the lumber product [is] devoid of any location marking indicators away from the stud locator markings. Any attempt to create a combination of Day and Leary, having visually conspicuous markings; or lumber product having markings directly on the lumber and wherein the lumber product is devoid of any location marking indicators away from the stud locator markings fails as being unfaithful to the teachings of Day and/or Leary.

Applicant thus submits that all claims as presented herein are allowable over all references of record. Allowance is respectfully solicited. No fee is believed to be due.

Should any fee be properly due, or if any refund is due, kindly charge same, or credit any overpayment, to Deposit Account 23-2130.

Please feel free to contact me with any questions, comments or concerns, at the telephone number listed at the end of this document.

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